DOCUMENT RESUME

ED 234 365 CS 007 301

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TITLE The Teacher-Teacher Reliability of the CRI and ERI.
PUB DATE Oct 82
NOTE 13p.; Paper presented at the Annual Meeting of the Keystone State Reading Association (15th, White Haven, PA, October 13-15, 1982). For related document, see ED 232 145.
PUB TYPE Reports - Research/Technical (143) -- Speeches/Conference Papers (150)

EDRS PRICE MF01/PC01 Plus Postage.
DESCRIPTORS *Comparative Analysis; Elementary Secondary Education; *Informal Reading Inventories; Interrater Reliability; Reading Instruction; *Reading Research; Reading Tests; *Test Reliability
IDENTIFIERS *Classroom Reading Inventory; *Ekwall Reading Inventory

ABSTRACT

Thirty-two children aged 7 to 12 participated in a study to determine the reliability of the Ekwall Reading Inventory (ERI) and the Classroom Reading Inventory (CRI). The children were randomly assigned to take one of the two inventories, which were administered by four different specially trained teachers. The study used a test-retest design, in which the test was a "live" administration of one of the inventories by one teacher and the retest was the scoring of a videotape of the first teacher by a second. The test and retest for each child was compared on two dimensions of test scoring purity: (1) teacher adherence to test scoring procedures and (2) the use of teacher judgment to supersede strict scoring rules. Results showed that both the ERI and the CRI are reliable when used by professionals trained in their use. Teachers using the ERI scoring criteria and teacher judgment placed their pupils within one grade level 14 of 16 times, while teachers using the CRI with teacher judgment achieved agreement within one grade in 11 of 16 times. (FL)

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The Teacher-Teacher Reliability of the CRI and ERI

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The Teacher-Teacher Reliability of the CRI and ERI

The problem of finding reading practice material for the reading instruction of a specific pupil is often solved through the use of some informal reading inventory. The informal reading inventory (IRI) provides controlled samples of pupil reading behavior, and an estimate of the pupil's ability to gain various degrees of meaning from graded materials. Such information helps the reading teacher to select practice materials of suitable difficulty for pupils (Johns 1977).

To the extent that the IRI is a reliable measure of a pupil's reading performance, it is a useful instrument for the IRI has an obvious face validity that is difficult to dispute (Kelly 1970). However, the reliability of an IRI has rarely been investigated.

The two purposes of this paper are: (1) to present a review of recent reliability trials of one or more informal reading inventories; and (2) to present the results of a

recent reliability study of the Ekwall Reading Inventory (Ekwall 1979) and the Classroom Reading Inventory (Silvaroli 1976).

Recent Reliability Studies: McRae (1974) studied the reliability of the Houghton-Mifflin Pupil Placement Tests, an IRI keyed to a Houghton-Mifflin basal reader of the early 1970's. McRae used a split-half correlation model to analyze the test results of 36 sixth grade pupils exposed to the Pupil Placement Tests. McRae reported a Spearman-Brown coefficient of correlation of .90 for the tests.

West (1977) employed two-hundred trials of the West Informal Reading Evaluation in a simple test-retest reliability model involving 100 adult subjects. West reported a test-retest product moment coefficient of correlation of .85 for her trials.

Ekwall (1979) tested 40 pupils with the Ekwall Reading Inventory (ERI) using an alternate form reliability model. He reported test-retest coefficients of correlation of .82 between ERI forms "A" and "C" and a coefficient of correlation of .79 between ERI forms "B" and "D".

The use of a test-retest or alternate form correlation model to study test reliability can be criticized as masking important pupil performance differences (Nunnally 1967). Other research considerations of test

order, pupil-examiner assignment and pupil intelligence were not well described in the studies reported above.

Description of the Research: This study involved 32 children ages seven through twelve. The children were randomly selected from volunteers. No mentally retarded children were included in the study.

The children were randomly assigned to take either the Ekwall Reading Inventory (ERI) or the Classroom Reading Inventory (CRI). Furthermore, each child was randomly assigned to one of four teachers administering the tests.

Each of the four teachers is a remedial reading teacher, certified as such by the Commonwealth of Pennsylvania. Each of the four reading teachers holds a masters degree in remedial and developmental reading instruction, and each graduated from an institution requiring a reading practicum of at least one academic quarter. Three of the four teachers are female and one is a male.

Prior to the start of the research, the four reading examiners spent three days of intensive discussion and supervised practice with the ERI and CRI. At the conclusion of these training sessions all four teachers were able to score ERI and CRI practice tapes with less than a three-error difference between protocols.

Treatments in the study consisted of one teacher administering either a CRI or ERI (or both) to a child in

a pre-determined random order. In the test-retest model employed for this study, this first administration counted as the test.

A minimum of four days (a maximum of three weeks) after this first administration and scoring, the same teacher scored a new IRI protocol from the previously taped administration. This counted as the retest.

On both test scoring trials (test and retest) of the IRI the teacher recorded two estimates of the pupil's "instructional reading level". One estimate was based upon the slavish adherence to the informal reading inventory instructions and the second estimate was based upon the IRI result plus the teacher's clinical judgment of the child's ability.

Results of these comparisons are presented in Table I and Table II.

Table I

Test-Retest Comparison of the
Ekwall Reading Inventory (ERI)

Result	Strict Criteria	Teacher Judgment
Perfect Agreement	9	7
± 1 Grade Level	4	7
± 2 Grade Level	0	0
± 3 Grade Level	1	1
No Instructional Level Determined	2	1
Total Number	16	16

Table II

Test-Retest Comparision of the Classroom Reading Inventory (CRI)

Result	Strict Criteria	Teacher Judgment
Perfect Agreement	5	11
+ - 1 Grade Level	4	2
+ - 2 Grade Level	1	1
+ - 3 Grade Level	0	0
No Instructional Level Determined	6	2
Total Number	16	16

Discussion of the Research: Table I indicates that teachers using clinical judgment to augment the ERI scoring criteria placed their pupils with perfect reliability seven of sixteen times.

Teachers using ERI scoring criteria and judgment placed their pupils within one grade level fourteen of sixteen times. The perfect agreement instances for the ERI were slightly increased (nine of sixteen) through use of the strict criteria scoring. However, the estimates within one grade level were decreased by the "strict criteria" scoring. Overall, for the ERI, the "teacher judgment" scoring solved one instance of non-decision over the "strict criteria" scoring while keeping the test-retest reliability within one grade level.

Table II shows that use of the CRI with teacher judgment resulted in perfect agreement of CRI test-retest scores in eleven of sixteen trials and agreement within one grade level for thirteen of sixteen trials. Use of the "strict scoring criteria" for the CRI reduced the reliability slightly "within one grade level" from thirteen of sixteen administrations to nine of sixteen administrations.

The informal reading inventories tested in this research proved sufficiently reliable for the usual purpose of aiding the decision of an instructional reading

level starting place for intensive reading instruction (Lowell 1970). The few children who defy the within one reading level placement (less than 13% for this study) can have their reading levels adjusted during instruction if, indeed, the concept of a specific reading instructional level is even a valid one for this group of hard-to-place readers.

Summary: Thirty-two children were tested by one of four teachers using either the Ekwall Reading Inventory or the Classroom Reading Inventory.

The test administrations were taped and the teacher giving and scoring the original test used the tape to complete a new test protocol and rescore the second test independent of the first testing. A minimum of four days intervened between test scorings.

The test and retest for each child was compared for the thirty-two children (sixty-four test administrations) on two dimensions of test scoring purity. One dimension of test scoring purity involved the strictest possible teacher adherence to test scoring procedures. The second dimension of test scoring purity involved the use of teacher judgment to supercede strict scoring rules.

Strict scoring criteria enabled teachers to place a child's instructional reading level within one grade level for twenty-two of thirty-two children (69%). Teacher

judgment scoring criteria enabled teachers to place a child's instructional reading level within one grade level for twenty-seven of thirty-two children (84%).

Conclusions: The CRI and ERI are reliable tests when used by professionals trained in their use.

A small percentage of children defy reading instructional placement from a single administration of the CRI or ERI. Thus, teachers who wish to match a child's reading achievement with leveled materials need to remain open to changing the difficulty of materials if the child's progress (or lack of progress) during instruction indicates a needed change.

There are slight ambiguities in the administration directions for both the CRI and the ERI. Teachers using these instruments need to resolve the ambiguities consistently in order to match the reliability results of this study.

Raplications of this study are needed to reach a definitive determination of the reliability of the ERI and CRI.

REFERENCES

Botel, Morton. Botel Reading Inventory Administration Manual. New York: Follett Publishing, 1978.

Braswell, Charlie N. "A Comparison of Two Methods of Administering an Informal Reading Inventory." Doctoral dissertation, University of South Carolina, 1976.

Classroom Reading Inventory. Dubuque, Iowa: Wm. C. Brown, 1976.

Ekwall Reading Inventory. Boston: Allyn-Bacon, 1979.

Ekwall, Eldon B. Ekwall Reading Inventory Manual of Directions. Boston: Allyn-Bacon, 1979. pp. 15.

Farr, Roger. Reading: What Can Be Measured? Newark, Delaware: International Reading Association, 1969.

Hardin, Veralee B. and W. B. Ames. "A Comparison of the Results of Two Oral Reading Tests." The Reading Teacher. vol. 22 (January 1969), pp. 329-334.

Johns, Jerry et al. Assessing Reading Behavior. Newark, Delaware: The International Reading Association, 1977.

Johns, Jerry L. "Matching Students With Books." Contemporary Education. vol. 48 (Spring, 1977) pp. 133-36.

Kelly, Dean. "Using An Informal Reading Inventory to Place Children In Instructional Materials." In Reading Difficulties: Diagnosis, Correction and Remediation, edited by William K. Durr. Newark, Delaware: International Reading Association, 1970. pp. 111-19.

Kender, Joseph P. "An Analysis of Factors Associated With Informal Reading Tests At the Eighth Grade Level." April 1968. Microfiche Ed. 019206.

Lowell, Robert E. "Problems in Identifying Reading Levels With Informal Reading Inventories." In Reading Difficulties: Diagnosis, Correction and Remediation, edited by William K. Durr. Newark, Delaware: International Reading Association, 1970. pp. 120-26.

McRae, L. G. "A Measure of the Reliability of the Informal Reading Inventory." Doctoral dissertation, University of Northern Colorado, 1974.

Memory, David, Glen Powell and Byron Callaway. "A Study of the Characteristics of the Woodcock Reading Mastery Tests." Reading Improvement. vol. 17 (Spring, 1980) pp. 48-52.

Nunnally, Jum C. Psychometric Theory. New York: McGraw-Hill, 1967. pp. 193-220.

Powell, William R. "Validity of the IRI Reading Levels." Elementary English. vol. 48 (October 1971) pp. 637-42.

Silvaroli, Nicholas J. Classroom Reading Inventory Manual of Directions. Dubuque, Iowa: William C. Brown, 1976.

Smith, William E. and Michael D. Beck. "Determining Instructional Reading Level With the 1978 Metropolitan Achievement Tests." The Reading Teacher. vol 34 (December 1980) pp. 313-19.

West, Ellen. "The Use of an Unobtrusive Screening Device to Approximate Reading Levels of Adults." Paper presented to the Annual Meeting of the National Reading Conference, New Orleans, Louisiana. December 1-3, 1977.

END

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